REMARKS

In the Office Action dated May 4, 2006, the Examiner rejected claims 1-12 under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent No. 6,418,419 ("Nieboer"). The undersigned has reviewed the May 4, 2006 Office Action and respectfully traverses all rejections for the reasons set forth herein.

General remarks about the Office Action dated May 4, 2006

As an initial matter, Applicants note that the Examiner's 102(e) rejection of all pending claims, as presented in the May 4, 2006 Office Action, provides only a recitation of each claim with an accompanying reference to the Nieboer patent. Applicants respectfully submit that the Examiner has not met her burden to "clearly explain" to Applicants the "pertinence" of any cited prior art. The MPEP dictates in several sections the Examiner's requirements in presenting references asserted to be prior art:

> **707.05 Citation of References [R-3]**
>
> During the examination of an application or reexamination of a patent, the examiner should cite appropriate prior art which is nearest to the subject matter defined in the claims. <u>When such prior art is cited, its pertinence should be explained.</u>

MPEP § 707.05 (emphasis added).

> **707 Examiner's Letter or Action [R-2]**
>
> 37 CFR 1.104. *Nature of examination.*
>
> (a) *Examiner's action.*
>
> (...)
>
> (2) The applicant, or in the case of a reexamination proceeding, both the patent owner and the requester, will be notified of the examiner's action. <u>The reasons for any adverse action or any objection or requirement will be stated in an Office action and such information or references will be given as may be useful in aiding the applicant, or in the</u>

case of a reexamination proceeding the patent owner, to judge the propriety of continuing the prosecution.

(...)

(c) *Rejection of claims.*

(...)

(2) In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

MPEP § 707 (emphasis added).

707.07(f) Answer All Material Traversed [R-3]

In order to provide a complete application file history and to enhance the clarity of the prosecution history record, an examiner must provide clear explanations of all actions taken by the examiner during prosecution of an application.

MPEP § 707.07(f) (emphasis added).

707.07(g) Piecemeal Examination

Piecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available, avoiding, however, undue multiplication of references. (See MPEP § 904.03.) Major technical rejections on grounds such as lack of proper disclosure, lack of enablement, serious indefiniteness and *res judicata* should be applied where appropriate even though there may be a seemingly sufficient rejection on the basis of prior art. Where a major technical rejection is proper, it should be stated with a full development of reasons rather than by a mere conclusion coupled with some stereotyped expression.

MPEP § 707.07(g) (emphasis added).

Hence, Applicants hereby respectfully request that the May 4, 2006 action be withdrawn, and that the Examiner provide a more detailed action. Notwithstanding Applicants' request, Applicants address below the Examiner's rejection to each of the pending claims.

General remarks about Nieboer

Applicants respectfully submit that, in general terms, Nieboer discloses an automated system to anonymously buy and sell positions in fungible properties between subscribers, where the offers to purchase or sell the properties can be conditioned upon factors, as set by the subscribers (i.e. conditional trading). Applicants' disclosure and claimed invention, on the other hand, are directed to a system for automatically hedging financial instruments. While in Applicants' disclosed system, users may adjust different hedging parameters, Nieboer does not teach an automated hedging system for financial instruments and therefore, cannot anticipate Applicants' claimed invention. Presented below are Applicants' replies to the Examiner's bases for rejection of each claim.

The undersigned's Remarks are preceded by related comments of the Examiner, presented in small bold-faced type.

Detailed remarks

Claim 1

Re claim 1: Nieboer discloses:

A computer-implemented method of financial instrument trading (see Nieboer, title), comprising:

Calculating a financial risk associated with a first financial instrument based on a pricing volatility model (see Nieboer, column 3, line 48 "volatility offering")

Generating an order to hedge the first financial instrument by acquiring a second financial instrument at a target price that is determined based on the pricing volatility model (see Nieboer, Figure 15, conditional order charts) and

Transmitting the order to an exchange (see Nieboer, Column 22, line 57-61)

Applicants respectfully submit that Nieboer does not disclose "[c]alculating a financial risk associated with a first financial instrument based on a pricing volatility model." Nieboer, in col. 3, lines 40-48, discusses that the order book of his invention can be viewed in several forms, depending on the user's input. Nieboer further specifies that the views are "intuitively different,

but logically identical, i.e., which present the same substance in different formats." (Nieboer, col. 3, lines 41-43). One of these views is a "volatility offering." While this term is not defined by Nieboer, Nieboer qualifies it as presenting "the same substance in different formats" as "formatting an offer to purchase an option at a specific price as originally input by a subscriber" (Nieboer, col. 3, lines 44-45.) Thus, Applicants respectfully disagree with the Examiner that Nieboer teaches in the passage cited a calculation of a financial risk associated with a financial instrument based on a pricing volatility model.

Applicants also respectfully submit that Nieboer does not disclose "[g]enerating an order to hedge the first financial instrument by acquiring a second financial instrument at a target price that is determined based on the pricing volatility model." The Examiner cites Figure 15 of Nieboer entitled "Conditional order charts." Nieboer describes Figure 15 as follows:

> The chart in FIG. 15 represents orders put into the system, whether outright or on-swap (conditional orders are sometimes referred to as "on-swap"), and how the price would look had the user executed against that order using the current hedge. The red dots are sell orders, the blue are buy orders and the yellow are trades. This is proprietary data , and can be accessed by all users of the system. The chart is sized to cover only the Wild Card Area of the workspace.

(Nieboer, col. 14, lines 58-65.)

Applicants respectfully submit that neither such a description, nor the rest of the Nieboer patent, teach the generation of an order to hedge a financial instrument by acquiring a second financial instrument at a price determined on a pricing volatility model. While Nieboer refers to a certain "current hedge," no explanation of the meaning of such term is provided. In addition, no reference to the automatic hedging of a financial instrument by acquiring another is provided either.

For at least the foregoing reasons, Applicants respectfully submit that Nieboer does not anticipate claim 1.

Claims 2-8 of Applicants' patent application depend directly or indirectly from claim 1. For at least this reason, these claims are not anticipated by Nieboer either. Applicants respectfully submit that the Examiner's bases to reject each one of these dependent claims will not be addressed at this time.

Claim 9

> **Re claim 9: Nieboer discloses:**
>
> **Terminal interface coupling the system to a plurality of trading terminals (see Nieboer, Figure 3)**
>
> **Trading network interface coupling the system to a financial instrument trading exchange (see Nieboer, Figure 3, item T)**
>
> **A hedging engine (see Nieboer, Figure 3, Item TE) operatively coupled to the terminal interface and to the trading network interface and configured to receive hedging data (see Nieboer, Figure 3, item 9) from ones of the trading terminals and to transmit buy and sell hedging orders to the financial instrument trading exchange,**
>
> **The hedging engine comprising stored instructions to configure generation of successive stages of buy and sell hedging orders (see Nieboer, Figure 3, item TE), each of the buy and sell orders comprising a price determined based on a volatility model associated with a financial instrument and a reference price for the financial instrument, the reference price being adjustable for each of the successive stages. (see Nieboer, Figure 3, arrows from TE).**

Applicants respectfully submit that Nieboer does not disclose "[a] hedging engine operatively coupled to the terminal interface and to the trading network interface and configured to receive hedging data from ones of the trading terminals and to transmit buy and sell hedging orders to the financial instrument trading exchange, the hedging engine comprising stored instructions to configure generation of successive stages of buy and sell hedging orders, each of the buy and sell orders comprising a price determined based on a volatility model associated with a financial instrument and a reference price for the financial instrument, the reference price being adjustable for each of the successive stages." In rejecting claim 9, the Examiner has cited to different elements of Figure 3 of Nieboer.

Nieboer describes Figure 3 as follows:

> FIG. 3 illustrates the processing of a match order using the system of FIG. 1. This scenario depicts a situation where one client has requested to be informed on events related to a given security sometime, then a second client places a bid for that security, then a third client places an ask for that same security.
>
> An overview of the processing step are numbered in FIG. 2 as follows:
>
> 1. Monitor Security
> 2. Return Latest Data
> 3. Input Bid Order
> 4. Distribute Bid Order
> 5. Distribute Ticker Data
> 6. Input Ask Order
> 7. Distribute Ask Order (also Distribute Ticker Data
> 8. External prices converge making orders cross
> 9. Crossed orders are matched
> 10. Distribute Trade Detail.

(Nieboer, col. 6, lines 41-61)

Element TE is described in Nieboer as "[a] server-side component charged with routing and matching orders TE receives the message and makes the proper changes to its active orders lists," (Nieboer, col. 6, lines 31-34), "the message" being "a message for the system to place a new order for the security in question" (Nieboer, col. 6, lines 25-26). Step 9 is described as that in which "[c]rossed orders are matched," "orders" referring to "Bid" and "Ask" orders, as placed by clients (Nieboer, col. 6, lines 52 and 55, respectively). In Nieboer, engine TE appears simply to match bid and ask orders. Hence, Nieboer does not disclose TE as a hedging engine comprising stored instructions to configure generation of successive stages of buy and sell hedging orders, each of the buy and sell orders comprising a price determined based on a volatility model associated with a financial instrument and a reference price for the financial instrument, the reference price being adjustable for each of the successive stages, as claimed by Applicants in claim 9.

For at least the foregoing reasons, Applicants respectfully submit that Nieboer does not anticipate claim 9.

Since Applicants' claim 10 depends from claim 9, for at least this reason Nieboer does not anticipate this claim either. Applicants respectfully submit that the Examiner's basis to reject this dependent claim will not be addressed at this time.

Claim 11

> **Re claim 11: Nieboer discloses:**
>
> **A computer-implemented method of financial instrument trading (see Nieboer, title), comprising:**
>
> **Calculating a financial risk associated with a first financial instrument based on a pricing volatility model (see Nieboer, column 3, line 48 "volatility offering")**
>
> **In a first hedging stage,**
>
> **- generating a first buy order and a first sell order each for a second financial instrument having a valuation that is correlated with the valuation of the first financial instrument, the first buy order comprising a buy target price and a buy quantity and the first sell order comprising a sell target price and a sell quantity, the buy and the sell target price and the buy and the sell quantity each being automatically determined based on an initial volatility value determined from the pricing volatility model so as to enable hedging of the financial risk (see Nieboer, Figure 15)**
>
> **-transmitting the first buy and the first sell order to an exchange (see Nieboer, Column 22, line 57-61)**
>
> **-receiving a notification from the exchange that one of the first buy order or the first sell order has been filled by the exchange and then canceling the unfilled one of the first buy order or first sell order (see Nieboer, figure 2, item T2)**
>
> **in each of a plurality of subsequent hedging stages**
>
> **-generating another buy and another sell order each for the second financial instrument based on a volatility value received from a trader and on a reference price at which a previous buy or previous sell order was filled by the exchange during a previous hedging stage and on a model adjusting the buy or sell order based on trending of the market with respect to the second financial instrument (see Nieboer, Figure 15)**
>
> **-transmitting said buy and said sell order to the exchange (see Nieboer, Column 22, line 57-61)**
>
> **-receiving a notification from the exchange that one of said buy or sell orders has been filled by the exchange and then canceling the unfilled one of the buy order or sell orders (see Nieboer, figure 2, item T2)**

As argued earlier for claim 1, Applicants respectfully submit that Nieboer does not disclose "[c]alculating a financial risk associated with a first financial instrument based on a pricing volatility model." Applicants respectfully refer the Examiner to the arguments presented above. (*See* Detailed remarks –Claim 1 above.)

As also discussed earlier, Nieboer does not disclose a system for performing automated hedging of a financial instrument. The Examiner cites to Figure 15 of Nieboer as disclosing "[i]n a first hedging stage, - generating a first buy order and a first sell order each for a second financial instrument having a valuation that is correlated with the valuation of the first financial instrument, the first buy order comprising a buy target price and a buy quantity and the first sell order comprising a sell target price and a sell quantity, the buy and the sell target price and the buy and the sell quantity each being automatically determined based on an initial volatility value determined from the pricing volatility model so as to enable hedging of the financial risk." As previously argued, Applicants respectfully submit that neither Nieboer's description of Figure 15's content, nor the rest of the Nieboer patent, disclose the generation of buy or sell orders for hedging a financial instrument, automatically determining the buy and the sell target price and the buy and the sell quantity, based on an initial volatility value determined from a pricing volatility model. While Nieboer refers to a certain "current hedge," no explanation of the meaning of such term can be found in Nieboer. In addition, there is no reference to the automatic hedging of a financial instrument by acquiring another. For similar reasons, neither Figure 15's content, nor the rest of the Nieboer patent disclose "generating another buy and another sell order each for the second financial instrument based on a volatility value received from a trader and on a reference price at which a previous buy or previous sell order was filled by the exchange during a previous hedging stage and on a model adjusting the buy or sell order based on trending of the market with respect to the second financial instrument." In Nieboer, there is no discussion of hedging stages, neither "a first hedging stage," nor "subsequent hedging stages," nor "a previous hedging stage."

For at least the reason that Nieboer does not disclose generating a first buy order and a first sell order in a first hedging stage, it does not disclose "receiving a notification from the exchange that one of the first buy order or the first sell order has been filled by the exchange and then canceling the unfilled one of the first buy order or first sell." Similarly, for at least the reason that Nieboer does not disclose "a plurality of subsequent hedging stages," it does not

disclose "receiving a notification from the exchange that one of said buy or sell orders has been filled by the exchange and then canceling the unfilled one of the buy order or sell orders."

For at least the foregoing reasons, Applicants respectfully submit that Nieboer does not anticipate claim 11. Moreover, because claim 12 of Applicants' patent application depends from claim 11, for at least this reason Nieboer does not anticipate this claim either. Applicants respectfully submit that the Examiner's basis to reject this dependent claim will not be addressed at this time.

In sum, Applicants respectfully submit that for at least the foregoing reasons, Nieboer does not anticipate claims 1-12 of Applicants' disclosure.

CONCLUSION

For the foregoing reasons, allowance of this application is courteously urged.

Claims 1-12 are now pending and believed to be in condition for allowance. Applicants respectfully request that all pending claims be allowed.

Early and favorable action is respectfully requested.

Please apply any credits or excess charges to our deposit account number 50-0521.

Respectfully submitted,

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Isabel Cantallops
Reg. No. 57,710

Clifford Chance US LLP
31 West 52nd Street
New York, NY 10019-6131
Telephone: (212) 895-1376